

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)[Cases](#)**Search Results -**

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Database: US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

L44

[Refine Search](#)[Recall Text](#)[Clear](#)**Search History**DATE: Wednesday, November 12, 2003 [Printable Copy](#) [Create Case](#)Set Name Query
side by sideHit Count Set Name
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DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ

<u>L44</u>	L14 and l41	1	<u>L44</u>
<u>L43</u>	L14 and l39	10	<u>L43</u>
<u>L42</u>	l39 and L41	9	<u>L42</u>
<u>L41</u>	L24 with l3	658	<u>L41</u>
<u>L40</u>	L24 with l2	17	<u>L40</u>
<u>L39</u>	l24 with l1	341	<u>L39</u>
<u>L38</u>	(l13 and L34) not l37	22	<u>L38</u>
<u>L37</u>	l13 and L35	6	<u>L37</u>
<u>L36</u>	l24 same l3	1028	<u>L36</u>
<u>L35</u>	l24 same l2	45	<u>L35</u>
<u>L34</u>	l24 same l1	502	<u>L34</u>

<u>L33</u>	l24 and l1	4241	<u>L33</u>
<u>L32</u>	l4 and L31	8	<u>L32</u>
<u>L31</u>	L25 and l28	17	<u>L31</u>
<u>L30</u>	l18 and L26	0	<u>L30</u>
<u>L29</u>	l18 and L28	3	<u>L29</u>
<u>L28</u>	"growth regulator"	14215	<u>L28</u>
<u>L27</u>	l17 and L26	0	<u>L27</u>
<u>L26</u>	l4 and L25	18	<u>L26</u>
<u>L25</u>	l13 and L24	363	<u>L25</u>
<u>L24</u>	fungicid\$8	58876	<u>L24</u>
<u>L23</u>	L4 and l18	2	<u>L23</u>
<u>L22</u>	L14 and l18	0	<u>L22</u>
<u>L21</u>	L16 and l18	0	<u>L21</u>
<u>L20</u>	l18 and L19	0	<u>L20</u>
<u>L19</u>	((504/345)!.CCLS.)	72	<u>L19</u>
<u>L18</u>	l13 and l17	44	<u>L18</u>
<u>L17</u>	chlormequat or chloroethyltrimethylammonium or (chloro adj4 (trimethylethanaminium or trimethylethaneammonium)) or (chlorocholine chloride) or cycocel or cyanamid or cycogan or cecece or barleyquat or bettaquat or farmacel or increcel	22464	<u>L17</u>
<u>L16</u>	L15 not l8	5	<u>L16</u>
<u>L15</u>	l13 and L14	5	<u>L15</u>
<u>L14</u>	71.clas.	8613	<u>L14</u>
<u>L13</u>	L1 and l2 and l3	3230	<u>L13</u>
<u>L12</u>	(l6 and l7) not l8	1	<u>L12</u>
<u>L11</u>	(l5 and l7) not l8	6	<u>L11</u>
<u>L10</u>	L9 not l8	1	<u>L10</u>
<u>L9</u>	l5 and l6	2	<u>L9</u>
<u>L8</u>	l5 and l6 and L7	1	<u>L8</u>
<u>L7</u>	l3 same l4	436	<u>L7</u>
<u>L6</u>	l2 same l4	123	<u>L6</u>
<u>L5</u>	l1 same L4	154	<u>L5</u>
<u>L4</u>	fertili\$8	91144	<u>L4</u>
<u>L3</u>	salicyl\$4 or benzoic or benzoate\$1 or salicylamide\$1	161900	<u>L3</u>
<u>L2</u>	thiosulfate\$1 or thiosulphate\$1	29037	<u>L2</u>
<u>L1</u>	phosphon\$4	87267	<u>L1</u>

END OF SEARCH HISTORY

WEST



Generate Collection

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L43: Entry 7 of 10

File: USPT

Sep 1, 1998

DOCUMENT-IDENTIFIER: US 5800837 A

**** See image for Certificate of Correction ****

TITLE: Plant fertilizer compositions containing phosphonate and phosphate salts and derivatives thereof

Brief Summary Text (2) :

The present invention is broadly concerned with fungicidal compositions, and methods of use, which provide improved efficacy in controlling parasitic fungi in plants. More particularly, the compositions and methods of use of the invention include fungicidally effective amounts of both phosphate, preferably in the form of either mono, di, tri or dipotassium phosphate (KH.sub.2 PO.sub.4, K.sub.2 HPO.sub.4) and phosphonate, preferably in the form of either mono or dipotassium phosphonate (KH.sub.2 PO.sub.3, K.sub.2 HPO.sub.3), in aqueous solution.

Brief Summary Text (7) :

In the past, various phosphonate compounds have been proposed as useful in fungicidal and fertilizer compositions for application to plants. See, e.g., U.S. Pat. Nos. 4,075,324 and 4,119,724 to Thizy, describing phosphorous acid, its inorganic and organic salts, as a plant fungicide; U.S. Pat. No. 4,139,616 to Dueret, describing fungicidal compositions based on phosphorous acid esters and salts thereof; U.S. Pat. No. 4,542,023 to Lacroix et al., describing organophosphorus derivatives as possessing systemic and contact fungistatic and fungicidal activity; U.S. Pat. Nos. 4,698,334 and 4,806,445 and 5,169,646 to Horriere et al., describing fungicidal compositions based on alkyl phosphonates; U.S. Pat. Nos. 4,935,410 and 5,070,083 to Barlet, describing fungicidal aluminum tris-alkyl-phosphonate compositions; and U.S. Pat. No. 5,514,200 to Lovatt, describing formulations of phosphorous-containing acid fertilizer for plants. (The teachings of the proceeding U.S. patents are hereby incorporated by reference.) The above references disclose phosphonate compositions have been found to be effective for protecting plants, and particularly grape vines, citrus and fruit trees and tropical plants, against fungal attack.

Brief Summary Text (11) :

Accordingly, the requirements for a successful phosphonate-based fungicide depend on the elimination of the phosphonate-induced pathological ascerbation of Ascomycete fungical infections.

Brief Summary Text (14) :

The present invention addresses the problems outlined above, and provides an improved anti-fungicidal composition for plants that contains, as active ingredients, fungicidally effective amounts of both phosphonates and phosphates. According to the present invention, it has been discovered that the application to a plant of the inventive phosphonate/phosphate composition substantially eliminates pathological acerbation of Ascomycete fungi, while at the same time, provides a means to control Phycomycetes and Ascomycetes and other fungi with a single product.

Detailed Description Text (24):

It will also be appreciated that compositions for controlling Phycomycete and Ascomycete fungi diseases in plants may also contain phosphate and phosphonate compounds comprising a fungicidally effective amount of at least a first salt having the following formula: ##STR3##

WEST**End of Result Set**

Generate Collection

Print

L43: Entry 10 of 10

File: USPT

Feb 16, 1982

DOCUMENT-IDENTIFIER: US 4315762 A

TITLE: Use of aluminum tris(-O-ethyl phosphonate) as an ammonium nitrification compound

Brief Summary Text (8):

Separately, aluminum tris(-O-ethyl phosphonate) has been disclosed as a fungicide. See Farm Chemicals Handbook, 1980, Meister Publishing Co., page D12 (1980). However, this compound has never been disclosed until the present-invention as being an ammonium nitrification inhibitor.

Detailed Description Text (2):

The active compound of the present invention, aluminum tris(-O-ethyl phosphonate), is a commercially known fungicide. It is also known as aluminum ethyl phosphite and has the following chemical formula: ##STR2## This compound may be prepared by reacting the corresponding phosphoric acid with aluminum hydroxide. However, this compound may be made according to other preparative methods and the present invention is not to be limited to any specific method of preparation.

Current US Class (2):71

☐ 3. Document ID: US 6358538 B1

L43: Entry 3 of 10

File: USPT

Mar 19, 2002

US-PAT-NO: 6358538

DOCUMENT-IDENTIFIER: US 6358538 B1

TITLE: Method for protecting plants from fungus

DATE-ISSUED: March 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Provitola; Anthony Italo	DeLand	FL	32721-2855	

US-CL-CURRENT: 424/718; 424/682, 47/DIG.11, 71/58, 71/59

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 4. Document ID: US 6113665 A

L43: Entry 4 of 10

File: USPT

Sep 5, 2000

US-PAT-NO: 6113665

DOCUMENT-IDENTIFIER: US 6113665 A

TITLE: Formulation of phosphorus fertilizer for plants

DATE-ISSUED: September 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lovatt; Carol J.	Riverside	CA		

US-CL-CURRENT: 71/11; 71/27, 71/32, 71/41, 71/64.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 5. Document ID: US 5997910 A

L43: Entry 5 of 10

File: USPT

Dec 7, 1999

US-PAT-NO: 5997910

DOCUMENT-IDENTIFIER: US 5997910 A

TITLE: Plant fertilizer compositions containing phosphonate and phosphate salts and derivatives thereof

DATE-ISSUED: December 7, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Taylor; John B.	Deland	FL	32720	

US-CL-CURRENT: 424/601; 424/605, 504/101, 514/129, 514/131, 514/141, 514/142,
514/143, 71/36

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 6. Document ID: US 5906962 A

L43: Entry 6 of 10

File: USPT

May 25, 1999

US-PAT-NO: 5906962

DOCUMENT-IDENTIFIER: US 5906962 A

TITLE: Non-aqueous suspension concentrates of highly water-soluble solids

DATE-ISSUED: May 25, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Pallas; Norman Robert	Freehold	NJ		
Hazen; James L.	Galloway	OH		
Riedemann; Robert Jene	Neptune	NJ		
Ruch; Thomas E.	Sicklerville	NJ		

US-CL-CURRENT: 504/361; 137/13, 241/16, 424/405, 504/188, 504/192, 504/206, 504/324,
504/325, 504/337, 504/363, 516/31, 516/33, 516/909, 516/928, 71/64.08

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☒ 7. Document ID: US 5800837 A

L43: Entry 7 of 10

File: USPT

Sep 1, 1998

US-PAT-NO: 5800837

DOCUMENT-IDENTIFIER: US 5800837 A

**** See image for Certificate of Correction ****

TITLE: Plant fertilizer compositions containing phosphonate and phosphate salts and derivatives thereof

DATE-ISSUED: September 1, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Taylor; John B.	Deland	FL		

US-CL-CURRENT: 424/601; 424/605, 504/101, 71/36

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 8. Document ID: US 5344471 A

L43: Entry 8 of 10

File: USPT

Sep 6, 1994

US-PAT-NO: 5344471

DOCUMENT-IDENTIFIER: US 5344471 A

TITLE: Plant root coatings

DATE-ISSUED: September 6, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tuse; Daniel	Fremont	CA		
Hokama; Leslie A.	Mountain View	CA		
Foss; Carrie R.	Sunnyvale	CA		
Tefft; Jacqueline A.	Santa Cruz	CA		

US-CL-CURRENT: 47/58.1R; 424/93.5, 427/4, 71/6, 800/295

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 9. Document ID: US 4581056 A

L43: Entry 9 of 10

File: USPT

Apr 8, 1986

US-PAT-NO: 4581056

DOCUMENT-IDENTIFIER: US 4581056 A

TITLE: Synergistic senescence delaying foliar fertilizer composition and method of using same to delay senescence in field crops

DATE-ISSUED: April 8, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nooden; Larry D.	Ann Arbor	MI		
Garcia; Ramon L.	Manlius	NY		

US-CL-CURRENT: 71/28; 504/136, 504/138, 504/139, 504/142, 504/146, 504/148, 504/241, 504/276, 504/332, 71/27, 71/64.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☒ 10. Document ID: US 4315762 A

L43: Entry 10 of 10

File: USPT

Feb 16, 1982

US-PAT-NO: 4315762

DOCUMENT-IDENTIFIER: US 4315762 A

TITLE: Use of aluminum tris(-O-ethyl phosphonate) as an ammonium nitrification compound

DATE-ISSUED: February 16, 1982

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Evrard; Thomas O.	Little Rock	AR		

US-CL-CURRENT: 71/27; 504/190

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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L32: Entry 1 of 8

File: PGPB

Nov 8, 2001

PGPUB-DOCUMENT-NUMBER: 20010039246

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20010039246 A1

TITLE: Composition and method for early bloom thinning of fruit trees and controlling cracking of fruits

PUBLICATION-DATE: November 8, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Duan, Yousheng	Zibo	WA	CN	
Ju, Zhiqiang	Zibo		CN	
Ju, Liye	Zibo		CN	
Ju, Zhiguo	Wenatchee		US	

US-CL-CURRENT: [504/121](#); [424/630](#), [424/633](#), [424/634](#), [424/637](#), [424/638](#), [504/162](#), [504/163](#), [514/499](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMIC
Draw Desc	Image									

☐ 2. Document ID: US 6252083 B1

L32: Entry 2 of 8

File: USPT

Jun 26, 2001

US-PAT-NO: 6252083

DOCUMENT-IDENTIFIER: US 6252083 B1

TITLE: Carbamates and crop protection agents containing them

DATE-ISSUED: June 26, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mueller; Bernd	Frankenthal			DE
Sauter; Hubert	Mannheim 1			DE
Roehl; Franz	Schifferstadt			DE
Doetzer; Reinhard	Weinheim			DE
Lorenz; Gisela	Neustadt			DE
Ammermann; Eberhard	Heppenheim			DE

US-CL-CURRENT: [546/334](#); [548/189](#), [548/338.1](#), [548/366.7](#), [558/417](#), [560/24](#), [560/29](#),

560/30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 3. Document ID: US 6075148 A

L32: Entry 3 of 8

File: USPT

Jun 13, 2000

US-PAT-NO: 6075148

DOCUMENT-IDENTIFIER: US 6075148 A

TITLE: Carbamates and crop protection agents containing them

DATE-ISSUED: June 13, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mueller; Bernd	Frankenthal			DE
Sauter; Hubert	Mannheim			DE
Roehl; Franz	Schifferstadt			DE
Doetzer; Reinhard	Weinheim			DE
Lorenz; Gisela	Neustadt			DE
Ammermann; Eberhard	Heppenheim			DE

US-CL-CURRENT: 546/334; 548/189, 548/338.1, 548/366.7, 558/417, 560/24, 560/29,
560/30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 4. Document ID: US 5981532 A

L32: Entry 4 of 8

File: USPT

Nov 9, 1999

US-PAT-NO: 5981532

DOCUMENT-IDENTIFIER: US 5981532 A

TITLE: Carbamates and crop protection agents containing them

DATE-ISSUED: November 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mueller; Bernd	Frankenthal			DE
Sauter; Hubert	Mannheim			DE
Roehl; Franz	Schifferstadt			DE
Doetzer; Reinhard	Weinheim			DE
Lorenz; Gisela	Neustadt			DE
Ammermann; Eberhard	Heppenheim			DE

US-CL-CURRENT: 514/256; 514/269, 514/274, 514/311, 514/345, 514/369, 514/406,
546/334, 548/189, 548/338.1, 548/366.7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 5. Document ID: US 5824705 A

L32: Entry 5 of 8

File: USPT

Oct 20, 1998

US-PAT-NO: 5824705

DOCUMENT-IDENTIFIER: US 5824705 A

TITLE: Carbamates and crop protection agents containing them

DATE-ISSUED: October 20, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mueller; Bernd	Frankenthal			DE
Sauter; Hubert	Mannheim 1			DE
Roehl; Franz	Schifferstadt			DE
Doetzer; Reinhard	Weinheim			DE
Lorenz; Gisela	Neustadt			DE
Ammermann; Eberhard	Heppenheim			DE

US-CL-CURRENT: 514/485, 514/478, 514/486, 514/538, 514/596, 514/625, 560/27, 560/29,
560/34, 560/43, 560/45, 564/211, 564/49, 564/51, 564/52, 564/53

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KIMC

☐ 6. Document ID: US 5575993 A

L32: Entry 6 of 8

File: USPT

Nov 19, 1996

US-PAT-NO: 5575993

DOCUMENT-IDENTIFIER: US 5575993 A

**** See image for Certificate of Correction ****

TITLE: Ionene polymers containing biologically-active anions

DATE-ISSUED: November 19, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ward; James A.	Eads	TN		
Del Corral; Fernando	Memphis	TN		

US-CL-CURRENT: 424/78.1, 252/301.35, 252/405, 422/154, 422/155, 422/156, 422/158,
422/159, 422/16, 422/160, 422/6, 422/7, 424/405, 424/78.13, 424/78.14, 424/78.15,
424/78.3, 424/78.37, 424/78.38, 43/132.1, 504/345, 510/131, 510/234, 510/382,
510/383, 510/384, 510/391, 510/475, 514/252.11, 514/316, 514/332, 514/352, 514/357,
514/396, 514/399, 514/400, 514/406, 514/408, 514/422, 514/424, 514/425, 514/426,
514/428, 514/588, 514/595, 514/596, 514/597, 514/598, 514/642, 514/643, 71/27, 71/30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☐ 7. Document ID: US 4999043 A

L32: Entry 7 of 8

File: USPT

Mar 12, 1991

US-PAT-NO: 4999043

DOCUMENT-IDENTIFIER: US 4999043 A

TITLE: Triazolylmethyl tert-butyl carbinol derivatives which have plant growth regulating properties

DATE-ISSUED: March 12, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Elliott; Raymond	Nr. Reading			GB2
Dalziel; John	Binfield			GB2
Sunley; Raymond L.	Twyford			GB2

US-CL-CURRENT: 504/272; 504/169, 504/181, 548/101, 548/267.8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMIC

☐ 8. Document ID: US 4324799 A

L32: Entry 8 of 8

File: USPT

Apr 13, 1982

US-PAT-NO: 4324799

DOCUMENT-IDENTIFIER: US 4324799 A

TITLE: Fungicidal thioglycolic acid anilides, processes for their manufacture and pesticidal compositions containing them

DATE-ISSUED: April 13, 1982

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Koch; Manfred	Eppstein			DE
Mildenberger; Hilmar	Kelkheim			DE
Sachse; Burkhard	Kelkheim			DE

US-CL-CURRENT: 514/471; 514/508, 514/512, 514/513, 514/546, 558/2, 558/238, 558/240, 558/243, 558/246, 558/248, 560/9, 562/426

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 3 of 3 returned.**☐ 1. Document ID: US 20030118614 A1

L29: Entry 1 of 3

File: PGPB

Jun 26, 2003

PGPUB-DOCUMENT-NUMBER: 20030118614

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030118614 A1

TITLE: Water-in-oil polymer dispersion as additive in active ingredient-comprising compositions

PUBLICATION-DATE: June 26, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Sieverding, Ewald	St. Johann		DE	
Hintz, Sandra	Krefeld		DE	
Dambacher, Thomas	Grefrath		DE	
Beckerath, Thomas von	Krefeld		DE	
Busch, Johannes	Meerbusch		DE	

US-CL-CURRENT: 424/400

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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[KIMC](#)☐ 2. Document ID: US 6245717 B1

L29: Entry 2 of 3

File: USPT

Jun 12, 2001

US-PAT-NO: 6245717

DOCUMENT-IDENTIFIER: US 6245717 B1

TITLE: Suppression of auxin in higher plants

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dean; Frank	Spring	TX	77273	
Loy; Tim	Spring	TX	77386	
Vamvakias; T. Regina	Spring	TX	77380	

US-CL-CURRENT: 504/321

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☒ 3. Document ID: US 5341932 A

L29: Entry 3 of 3

File: USPT

Aug 30, 1994

US-PAT-NO: 5341932

DOCUMENT-IDENTIFIER: US 5341932 A

TITLE: Aqueous formulations

DATE-ISSUED: August 30, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chen; Chi-yu R.	Raleigh	NC		
Weber; Paul J.	Durham	NC		

US-CL-CURRENT: 206/524.7; 206/484, 424/409, 504/361, 504/366, 516/104, 516/107

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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WEST**End of Result Set**

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L29: Entry 3 of 3

File: USPT

Aug 30, 1994

DOCUMENT-IDENTIFIER: US 5341932 A

TITLE: Aqueous formulations

Abstract Text (1):

A composition, which is suitable for containment in a water soluble bag as a liquid or a gel, contains a hazardous product and an electrolyte and water and other additives. Typical hazardous products include agrochemicals such as pesticides, plant growth regulators and plant nutrients. Optionally the composition contains a thickener, a solvent or a dispersant. The water soluble bags used as containerization systems for these compositions may be made of polyvinylalcohol.

Brief Summary Text (17):

Another object of the present invention is to provide a shock absorbing formulation system for containing agrochemicals, e.g., pesticides (especially herbicides, insecticides, fungicides, acaricides or nematocides) or plant protection agents or plant growth regulators or plant nutrients.

Detailed Description Text (23):

The electrolytes which can be used in the invention may, for example (and as a non limiting list of examples), comprise a cation or mixtures of cations which may include: aluminium, ammonium, antimony, barium, bismuth, cadmium, calcium, cesium, copper, iron, lithium, magnesium, nickel, potassium, rubidium, silver, sodium, strontium, zinc or zirconium; and an anion or mixtures of anions or polyatomic anions which may include: acetate, aluminum sulfate, aminechlorides, aminenitrates, amineulfate, aminethionates, ammonium tartrate, azide, benzenesulfonate, benzoate, bicarbonate, bisulfite, borate(s), borohydride, borotartrate, borooxalate, bromate, bromide, butyrate, camphorate, carbonate, chlorate, chloride, chlorite, chromate, cinnamate, citrate, cyanate, cyanide, dichromate, disilicate, dithionate, ethylsulfate, ferricyanide, ferrocyanate, ferrocyanide, fluoride, fluoantimonate, fluoborate, fluoroacetate, fluorophosphates, fluorosulfonate, fluosilicate, formaldehyde-sulfoxylate, formate, furanacrylate, glycerophosphate, hydrogen carbonate, hydrogen sulfate, hydrogen sulfite, hydrogencyanide, hydrogenophosphate, hyrogensulfate, hydrosulfite, hydroxide, hydroxostannate, hypochlorite, hyponitrite, hypophosphite, iodate, iodide, isobutyrate, lactate, laureate, manganate, meta-aluminate, metaborate, metaperiodate, metasilicate, methionate, methylsulfate, mixed halides, molybdate, nitrate, nitrite, oleate, orthophosphate, orthophosphite, orthosilicate, oxalate, oxalatoferate, oxide, oxides, perborate, perchlorate, perchlorate, permanganate, peroxide, peroxydisulfate, phenolsulfonate, phenoxide, phosphate, polybromides, polychlorides, polyfluorides, polyiodides, polysulfides, propionate, pyrosulfate, pyrosulfite, salicylate, sesqui-carbonate, silicate, silicate, sorbate, stannate, stearate, succinate, sulfamate, sulfanilate, sulfate, sulfide, sulfite, tartrate, thiocarbamate, thiocyanate, thiosulfate or valerate; either in their coordinated, anhydrous or hydrated forms.

Detailed Description Text (32):

As used herein, "hazardous product" means a product which may cause damage to the environment or be injurious to a person handling it. According to one main and preferred feature of the invention, the hazardous product is an active ingredient which is an agrochemical, and more precisely a plant protection agent or pesticide (particularly herbicide, insecticide, fungicide, acaricide or nematocide) or a plant growth regulator or plant nutrient. The invention is not limited to some specific

- agrochemicals; a list of many insecticides, nematocides, herbicides, fungicides, and plant growth regulants, and their corresponding ammonium and mono-/di-valent metal salts, and amine salts or their acid salts which can be used in the invention is given hereafter:

Detailed Description Text (33):

1-Naphthylacetic acid, 2,4,5-T, 2-(2-chlorobenzyl)-4-dimethyl-1,2-oxazolidin-3-one, Acetochlor, Alachlor, Aldrin, Alphacypermethrin, Ametryn, Amitraz, Amitrole, Anilofos, Asulam, Atrazine, Azinphos and its derivatives, Barban, Bentazole, Bentazone, Benzoylprop-Ethyl, Bifenox, Bifenthrin, Binapacryl, Bitertanol, Bromoxynil, Bupirimate, Butachlor, Buttalin, Carbaryl, Carbetamide, Carbosulfan, Chlordane, Chlordimeform, Chlorfenvinphos, Chlorfluazuron, Chlorothalonil, Chlorpyralid, Chlorpyrifos, Chlorsulfuron, Cinmethylin, Clomazone, Cyanazine, Cycloxydim, Cycocel, Cyfluthrin, Cyhalothrin, Cypermethrin, Deltamethrin, Demeton, Demeton-S-Methyl, Desmedipham, Diallate, Diazinon, Dichlone, Dichlorophen, Dichlorprop, Dichlorvos, Diclofop-methyl, Dicofof, Dicrotophos, Dieldrin, Diethatyl-Ethyl, Difenconazole, Diflufenican, Dimethachlor, Dimethametryn, Dimethoate, Dinocap, Dinoseb Acetate, Dinoseb, Dinoterb, Dioxacarb, Disulfoton, Dodemorph Acetate, Ebufos, Edifenphos, Endosulfan, Endrin, EPN, Esfenvalerate, Ethiofencarb, Ethion, Ethirimol, Ethofumesate, Ethoprophos, Ethoxyquin, Etrimfos, Fenethanil, Fenitrothion, Fenobucarb, Fenoxaprop-Ethyl, Fenpropathrin, Fenpropidin, Fenpropimorph, Fensulfathion, Fenthion, Fenvalerate, Flamprop and Its Derivatives, Fluazifop-p-butyl, Fluazifop-butyl, Fluchloralin, Flucytrinate, Flumetralin, Flumeturon, Fluoroglycofen-Ethyl, Fluotrimazole, Flusilazol, Fluvalinate, Formothion, Furathiocarb, Glufosinate-Ammonium, Heptachlor, Hezptenophos, Hydroprene, Imazethapyr, Iodofenphos, Ioxynil, Iprobenfos, Iprodione, Isazophos, Isofenphos, Isoprocab, Isoproturon, Lambda-Cyhalothrin, Lindane, Linuron, Malathion, Mancozeb, MCPP, Mecoprop, Mephosfolan, Merphos, Metalaxyl, Methacrifos, Methamidophos, Methidathion, Methomyl, Methoprene, Methyl Isothiocyanate, Methylparathion, Metolachlor, Metribuzin, Metsulfuron, Mevinphos, Mexacarbate, Miclobutanil, Mollate, Monalide, Monolinuron, Napropamide, Nitrofen, Omethoate, Oryzalin, Oxadiazon, Oxydemeton-Methyl, Oxyfluorfen, Parathion, Parathion-Methyl, Penconazole, Pendimethalin, Permethrin, Phenisopham, Phenmedipham, Phorate, Phosalone, Phosfolan, Phosphamidon, Phoxim, Piperophos, Pirimicarb, pirimiphos-Ethyl, Pirimiphos-Methyl, Pretilachlor, Prochloraz, Profenofos, Profluralin, Promecarb, Prometon, Prometryn, Propachlor, Propanil, Propargite, Propetamphos, Propham, Propiconazole, Propoxur, Propyl 3-Tert-Butylphenoxyacetate, Propyzamide, Prosulfocarb, Protiofos, Pyrazophos, Quinalphos, Quintozene, Quizalofop-Ethyl, Sethoxydim, SN-106 279, Sulprofos, Tebuconazole, Tebutam, Tebuthiuron, Teflubenzuron, Tefluthrin, Temephos, Tetrachlorvinphos, Thiobencarb, Thiodicarb, Tiometon, Tralkoxydim, Tri-Allate, Triadimefon, Triadimenol, Triazophos, Tribufos, Trichloronat, Tridemorph, Trifluralin, and Triforine, Vamidothion,

Detailed Description Text (34):

(2-Naphthylthio)acetic acid, 2,3,6-TBA, 2,4,5-T, 2,4-D, 2,4-DB, 2,4-DES, 2,4-DP, 2-(1-Naphthyl)acetic acid, 2-Phenylphenol, 4-Indol-3-yl-butyric acid, Acifluorfen, Alloxydim, Ammonium sulphamate, Benzolin, Bordeaux mixture, Bromacil, Bromoxynil, Butylamine, Chloramben, Chlorfenac, Chlormequat, Chloroacetic acid, Chlorphonium, Dalapon, Daminozide, Dicamba, Dichlorophen, Difenzoquat, Dikegulac, Dimethylarsinic acid, Dinoseb, Dinoterb, Diquat, DNOC, Dodine, Endothal, Ethephon, Fenaminosulf, Fenopop, Fluoroacetamide, Formaldehyde, Fosamine, Fosetyl, Gibberellic acid, Glufosinate, Glyphosate, Imazalil, Imazapyr, Imazaquin, Indol-3-ylacetic acid, Ioxynil, Kasugamycin, Maleic anhydride, MCPA, MCPB, Mecoprop, Mepiquat, Mercuric chloride, Mercurous chloride, Metham, Methylarsonic acid, Mevinphos, Monocrotophos, Nabam, Naphtenic acid, Naptalam, Nicotine, Oxamyl, Paraquat, Pentachlorophenol, Phosfolan, Phosphamidon, Picloram, Piproctanyl, Polyoxin, Propamocarb, Sodium chlorate, Sodium fluoride, Sodium fluoroacetate, Sodium hexafluorsilicate, Strychnine, TEPP, Triclopyr and Validamycin.

Detailed Description Text (36):

The following derivatives of these agrochemicals are found to be feasible (but is not limited to): benzoate, phenate, mono- and di-carboxylate, alkylamine salt, quaternary ammonium salt, phosphonium salt, hydrogen sulfate salt, pyrazolium salts, arsinates, guanidine, benzenediazosulfonate, acetamide, phosphonate, phosphinate, imidazole, piperidinium, carbamate, arsonate, vinyl phosphate, dithiocarbamate,

naphthylacetate, bypyridinium, pyrophosphate, pyridyloxyacetate, phosphorothioate.

CLAIMS:

18. A containerization system according to claim 11, wherein the electrolyte comprises:

a cation or mixtures of cations which may include: aluminum, ammonium, antimony, barium, bismuth, cadmium, calcium, cesium, copper, iron, lithium, magnesium, nickel, potassium, rubidium, silver, sodium, strontium, zinc or zinconium and

an anion or mixtures of anions or polyatomic anions which may include: acetate, aluminum sulfate, aminechlorides, aminenitrates, aminesulfate, aminethionates, ammonium tartrate, azide, benzenesulfonate, benzoate, bicarbonate, bisulfite, borate(s), borohydride, borotartrate, borooxalate, bromate, bromide, butyrate, camphorate, carbonate, chlorate, chloride, chlorite, chromate, cinnamate, citrate, cyanate, cyanide, dichromate, disilicate, dithionate, ethylsulfate, ferricyanide, ferrocyanate, ferrocyanide, fluoride, fluoantimonate, fluoborate, fluoroacetate, fluorophosphates, fluorosulfonate, fluorosilicate, formaldehyde-sulfoxylate, formate, furanacrylate, glycerophosphate, hydrogen carbonate, hydrogen sulfate, hydrogen sulfite, hydrogencyanide, hydrogenophosphate, hydrogensulfate, hydrosulfite, hydroxide, hydroxostannate, hypochlorite, hyponitrite, hypophosphite, iodate, iodide, isobutyrate, lactate, laurate, manganate, meta-aluminate, metaborate, metaperiodate, metasilicate, methionate, methylsulfate, mixed halides, molybdate, nitrate, nitrite, oleate, orthophosphate, orthophosphite, orthosilicate, oxalate, oxalatoferrate, oxide, oxides, perborate, perchlorate, perchlorate, permanganate, peroxide, peroxydisulfate, phenolsulfonate, phenoxide, phosphate, polybromides, polychlorides, polyfluorides, polyiodides, polysulfides, propionate, pyrosulfate, pyrosulfite, salicylate, sesqui-carbonate, silicate, silicate, sorbate, stannate, stearate, succinate, sulfamate, sulfanilate, sulfate, sulfide, sulfite, tartrate, thiocarbamate, thiocyanate, thiosulfate or valerate; either in their coordinated, anhydrous or hydrated forms.

41. A containerization system according to either of claims 1, 7, 2 or 8, wherein the electrolyte comprises:

a cation or mixtures of cations which may include: aluminum, ammonium, antimony, barium, bismuth, cadmium, calcium, cesium, copper, iron, lithium, magnesium, nickel, potassium, rubidium, silver, sodium, strontium, zinc or zinconium and

an anion or mixtures of anions or polyatomic anions which may include: acetate, aluminum sulfate, aminechlorides, aminenitrates, aminesulfate, aminethionates, ammonium tartrate, azide, benzenesulfonate, benzoate, bicarbonate, bisulfite, borate(s), borohydride, borotartrate, borooxalate, bromate, bromide, butyrate, camphorate, carbonate, chlorate, chloride, chlorite, chromate, cinnamate, citrate, cyanate, cyanide, dichromate, disilicate, dithionate, ethylsulfate, ferricyanide, ferrocyanate, ferrocyanide, fluoride, fluoantimonate, fluoborate, fluoroacetate, fluorophosphates, fluorosulfonate, fluorosilicate, formaldehyde-sulfoxylate, formate, furanacrylate, glycerophosphate, hydrogen carbonate, hydrogen sulfate, hydrogen sulfite, hydrogencyanide, hydrogenophosphate, hydrogensulfate, hydrosulfite, hydroxide, hydroxostannate, hypochlorite, hyponitrite, hypophosphite, iodate, iodide, isobutyrate, lactate, laurate, manganate, meta-aluminate, metaborate, metaperiodate, metasilicate, methionate, methylsulfate, mixed halides, molybdate, nitrate, nitrite, oleate, orthophosphate, orthophosphite, orthosilicate, oxalate, oxalatoferrate, oxide, oxides, perborate, perchlorate, perchlorate, permanganate, peroxide, peroxydisulfate, phenolsulfonate, phenoxide, phosphate, polybromides, polychlorides, polyfluorides, polyiodides, polysulfides, propionate, pyrosulfate, pyrosulfite, salicylate, sesqui-carbonate, silicate, silicate, sorbate, stannate, stearate, succinate, sulfamate, sulfanilate, sulfate, sulfide, sulfite, tartrate, thiocarbamate, thiocyanate, thiosulfate or valerate; either in their coordinated, anhydrous or hydrated forms.

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L23: Entry 1 of 2

File: USPT

Jun 12, 2001

US-PAT-NO: 6245717

DOCUMENT-IDENTIFIER: US 6245717 B1

TITLE: Suppression of auxin in higher plants

DATE-ISSUED: June 12, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dean; Frank	Spring	TX	77273	
Loy; Tim	Spring	TX	77386	
Vamvakias; T. Regina	Spring	TX	77380	

US-CL-CURRENT: 504/321

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
Draw Desc	Image								

KMC

☐ 2. Document ID: US 4254285 A

L23: Entry 2 of 2

File: USPT

Mar 3, 1981

US-PAT-NO: 4254285

DOCUMENT-IDENTIFIER: US 4254285 A

TITLE: 1-Hydroxymethyl-1-1-oxo prostane derivatives of the E and F series

DATE-ISSUED: March 3, 1981

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wissner; Allan	Ardsley	NY		

US-CL-CURRENT: 568/379, 549/449, 549/454, 558/275, 558/276, 558/56, 560/106, 560/107, 560/162, 560/164, 560/18, 560/231, 560/255, 560/73, 568/330, 987/58

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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L23: Entry 1 of 2

File: USPT

Jun 12, 2001

DOCUMENT-IDENTIFIER: US 6245717 B1

TITLE: Suppression of auxin in higher plants

Detailed Description Text (24):

In the context of the invention, a support is an organic or mineral, natural or synthetic material with which the active material is associated to facilitate its application to the plant, to seeds or to soil, or its transportation or handling. The support can be solid (e.g, clays, natural or synthetic silicates, resins, waxes, solid fertilizers) or fluid (water, alcohols, ketones, petroleum fractions, chlorinated hydrocarbons, liquefied gases, liquid fertilizers).

Detailed Description Text (34):

The macronutrients are essential to nutrition and growth.. The most important macronutrients are N, P and K.. Some Nitrogen compounds are: ammonium nitrate, monoammonium phosphate, ammonium phosphate sulfate, ammonium sulfate, ammonium phosphatenitrate, diammonium phosphate, ammoniated single superphosphate, ammoniated triple superphosphate, nitric phosphates, ammonium chloride, aqua ammonia, ammonia-ammonium nitrate solutions, calcium ammonium nitrate, calcium nitrate, calcium Cyanamid, sodium nitrate, urea, urea-formaldehyde, urea-ammonium nitrate solution, nitrate of soda potash, potassium nitrate, amino acids, proteins, nucleic acids.

Detailed Description Text (35):

Phosphate sources include: superphosphate (single, double and/or triple), phosphoric acid, ammonium phosphate, ammonium phosphate sulfate, ammonium phosphate nitrate, diammonium phosphate, ammoniated single superphosphate, ammoniated single superphosphate, ammoniated triple superphosphate, nitric phosphates, potassium pyrophosphates, sodium pyrophosphate, nucleic acid phosphates phosphorous acid salts and Phosphonic acid derivatives.

Detailed Description Text (36):

The potassium ion can be found in: potassium chloride, potassium sulfate, potassium gluconate, sulfate of potash magnesia, potassium carbonate, potassium acetate, potassium citrate, potassium hydroxide, potassium manganate, potassium phosphate, potassium molybdate, potassium thiosulfate, potassium zinc sulfate and the like.

Detailed Description Text (37):

Calcium sources include: calcium ammonium nitrate, calcium nitrate, calcium Cyanamid, calcium acetate, calcium acetylsalicylate, calcium borate, calcium borogluconate, calcium carbonate, calcium chloride, calcium citrate, calcium ferrous citrate, calcium glycerophosphate, calcium lactate, calcium oxide, calcium pantothenate, calcium proprionate, calcium saccharate, calcium sulfate, calcium tartrate and the like.

Detailed Description Text (38):

Magnesium can be found in: magnesium oxide, dolomite, magnesium acetate, magnesium bensoate, magnesium bisulfate, magnesium borate, magnesium chloride, magnesium citrate, magnesium nitrate, magnesium phosphate, magnesium salicylate, magnesium sulfate. Sulfur containing compounds include: ammonium sulfate, ammonium phosphate sulfate, calcium sulfate, potassium sulfate, magnesium sulfate, sulfuric acid, cobalt sulfate, copper sulfate, ferric sulfate, ferrous sulfate, sulfur, cysteine, methionine and elemental sulfur.

Detailed Description Text (46):

Cu--cupric acetate, cupric butyrate, cupric chlorate, cupric chloride, cupric citrate, cupric gluconate, cupric glycinate, cupric nitrate, cupric salicylate, cuprous acetate, cuprous chloride. B--calcium borate, potassium borohydride, borax, boron trioxide, potassium borotartrate, potassium tetraborate, sodium borate, sodium borohydride, sodium tetraborate and boric acid. Mo--molybdic acid, calcium molybdate, potassium molybdate, sodium molybdate. Co--cobaltic acetate, cobaltous acetate, cobaltous chloride, cobaltous oxalate, cobaltous potassium sulfate, cobaltous sulfate.

Detailed Description Text (51):

Microbialstats, Proprionic acid, benzoic acid, sorbic acid and amino acids.

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Search Results - Record(s) 1 through 5 of 5 returned.☐ 1. Document ID: US 5575993 A

L16: Entry 1 of 5

File: USPT

Nov 19, 1996

US-PAT-NO: 5575993

DOCUMENT-IDENTIFIER: US 5575993 A

**** See image for Certificate of Correction ****

TITLE: Ionene polymers containing biologically-active anions

DATE-ISSUED: November 19, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ward; James A.	Eads	TN		
Del Corral; Fernando	Memphis	TN		

US-CL-CURRENT: 424/78.1; 252/301.35, 252/405, 422/154, 422/155, 422/156, 422/158,
422/159, 422/16, 422/160, 422/6, 422/7 , 424/405, 424/78.13, 424/78.14, 424/78.15,
424/78.3, 424/78.37, 424/78.38, 43/132.1, 504/345, 510/131, 510/234, 510/382,
510/383, 510/384, 510/391, 510/475, 514/252.11, 514/316, 514/332, 514/352, 514/357,
514/396, 514/399, 514/400, 514/406, 514/408, 514/422, 514/424, 514/425, 514/426,
514/428, 514/588, 514/595, 514/596, 514/597, 514/598, 514/642, 514/643, 71/27, 71/30

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☒ 2. Document ID: US 4334905 A

L16: Entry 2 of 5

File: USPT

Jun 15, 1982

US-PAT-NO: 4334905

DOCUMENT-IDENTIFIER: US 4334905 A

TITLE: Agrochemical agents and their use

DATE-ISSUED: June 15, 1982

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wagner; Kuno	Leverkusen			DE
Niggemann; Johannes	Leverkusen			DE
Findeisen; Kurt	Odenthal			DE
Scheinpflug; Hans	Leverkusen			DE

US-CL-CURRENT: 71/27; 71/903

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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☒ 3. Document ID: US 4283219 A

L16: Entry 3 of 5

File: USPT

Aug 11, 1981

US-PAT-NO: 4283219

DOCUMENT-IDENTIFIER: US 4283219 A

TITLE: Agrochemical agents and their use

DATE-ISSUED: August 11, 1981

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wagner; Kuno	Leverkusen			DE
Niggemann; Johannes	Leverkusen			DE
Findeisen; Kurt	Odenthal			DE
Scheinpflug; Hans	Leverkusen			DE

US-CL-CURRENT: 71/28; 504/245, 504/360, 524/14, 524/17, 524/597, 524/72, 525/418,
525/540, 71/11, 71/27, 71/904

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☒ 4. Document ID: US 4252919 A

L16: Entry 4 of 5

File: USPT

Feb 24, 1981

US-PAT-NO: 4252919

DOCUMENT-IDENTIFIER: US 4252919 A

TITLE: Stabilized azulmic acids, processes for their preparation and their use

DATE-ISSUED: February 24, 1981

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wagner; Kuno	Leverkusen			DE
Findeisen; Kurt	Odenthal			DE

US-CL-CURRENT: 525/418; 528/362, 71/27

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMC

☒ 5. Document ID: US 4251255 A

L16: Entry 5 of 5

File: USPT

Feb 17, 1981

US-PAT-NO: 4251255

DOCUMENT-IDENTIFIER: US 4251255 A

TITLE: Agrochemical agents and their use

DATE-ISSUED: February 17, 1981

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wagner; Kuno	Leverkusen			DE
Niggemann; Johanness	Leverkusen			DE
Findeisen; Kurt	Odenthal			DE
Scheinpflug; Hans	Leverkusen			DE

US-CL-CURRENT: 71/27; 504/101, 504/191, 504/193, 504/195, 504/245, 504/358, 525/540,
71/903, 71/DIG.2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KM/C
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(a) A mixture of 108 g of the azulmic acid prepared according to Example 13(a), 14 g of calcium thiosulphate hexahydrate and 800 ml of water was warmed to 100.degree. C. for 1.6 hours. The mixture was then worked up by a procedure in which the solid product was filtered off, washed and dried. A modified azulmic acid was obtained which, on the basis of the amounts of ammonia and carbon dioxide evolved, contained about 3.3 percent by weight of F.sub.1 structural defects additionally formed and

- about 1.4 percent by weight of F.sub.2 structural defects additionally formed.

Current US Class (3):

71

CLAIMS:

9. The method of claim 1, in which said acid addition salt of said stabilized azulmic acid is an acid addition salt of an acid selected from the group consisting of hydrogen halide acids, phosphoric acid, phosphorous acid, phospholine oxide-phosphonic acids, dialkylphosphoric acids, polyphosphoric acids, nitric acid, acids derived from sulphur and organic acids.

13. The method of claim 9, in which said phospholine oxide-phosphonic acid has either of the formulas ##STR66##

19. The method of claim 15, in which said hydroxycarboxylic acid is hydroxyacetic acid, tartaric acid, citric acid or salicylic acid.

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L16: Entry 4 of 5

File: USPT

Feb 24, 1981

DOCUMENT-IDENTIFIER: US 4252919 A

TITLE: Stabilized azulmic acids, processes for their preparation and their use

Brief Summary Text (34):

By acid addition salts, according to the invention, of azulmic acid which are stabilized by condensation with polycarbonyl compounds there are to be understood those salts which are formed by addition of a proton of an inorganic or organic acid onto an amino group or another suitable group in a stabilized azulmic acid. Preferred possible inorganic acids here are hydrogen halide acids, such as hydrofluoric acid, hydrochloric acid and hydrobromic acid, and furthermore phosphorus acids, such as phosphoric acid, phosphorous acid, dialkylphosphoric acid, for example dibutylphosphoric acid, polyphosphoric acid with molecular weights from 6,000 to 40,000 and phospholine oxide-phosphonic acids, for example those of the formulae ##STR26## and furthermore nitric acid and acids derived from sulphur, such as sulphuric acid and sulphonc acids, examples which may be mentioned being ethylsulphonic acid, p-toluenesulphonic acid and naphthalene-1,5-disulphonic acid. Preferred possible organic acids are saturated or unsaturated carboxylic acids, such as formic acid, acetic acid, propionic acid, 2-ethylcaproic acid, acrylic acid, methacrylic acid, oleic acid and ricinoleic acid, and furthermore halogeno-carboxylic acids, such as chloroacetic acid, dichloroacetic acid and trichloroacetic acid, and also dicarboxylic acids, such as maleic acid, fumaric acid and succinic acid, and half-esters derived therefrom, and in addition hydroxy-carboxylic acids, such as hydroxyacetic acid, tartaric acid, citric acid and salicylic acid.

Brief Summary Text (71):

Preferred possible basic salts for carrying out variant (b) of process (A) are alkali metal sulphides, such as sodium sulphide, sodium bisulphide and potassium bisulphide, and further sodium thiosulphate, ammonium thiosulphate, ammonium polysulphides, calcium bisulphide, calcium thiosulphate and calcium cyanamide, and also potassium carbonate, potassium bicarbonate, potassium cyanate and waterglass (sodium waterglass or potassium waterglass). Mixture of ammonia and sodium thiosulphate, ammonium thiosulphate, sodium bisulphide, sodium sulphide and/or ammonium polysulphides are also particularly suitable for producing structural defects by this method.

Brief Summary Text (170):

Possible bases or basic salts in carrying out process (5) according to the invention are the most diverse inorganic or organic bases and basic salts. Alkali metal hydroxides, such as lithium hydroxide, sodium hydroxide and potassium hydroxide, alkali metal carbonates, such as sodium carbonate, potassium carbonate and potassium bicarbonate, alkali metal sulphides, such as sodium sulphide, potassium sulphide and potassium bisulphide, alkali metal thiosulphates, such as sodium thiosulphate, alkylamines and furthermore ammonium hydroxide and ammonium salts, such as ammonium polysulphides, can preferably be used.

Brief Summary Text (224):

Moreover, adducts of stabilized azulmic acids with compounds such as, for example, phospholine oxide-phosphonic acids of the formula ##STR51## are suitable as catalysts for the heterogeneous catalysis of the reaction of isocyanates and polyisocyanates to give polycarbodiimides and their further adducts with isocyanates, that is to say uretoneimine-polyisocyanates.

Detailed Description Text (102):

(a) A mixture of 108 g of the azulmic acid prepared according to Example 13a, 14 g of calcium thiosulphate hexahydrate and 800 ml of water is warmed to 100.degree. C. for 1.6 hours. The mixture is then worked up by a procedure in which the solid product is filtered off, washed and dried. A modified azulmic acid is obtained which, on the basis of the amounts of ammonia and carbon dioxide evolved, contains about 3.3 percent by weight of F.sub.1 structural defects additionally formed and about 1.4 percent by weight of F.sub.2 structural defects additionally formed.

Current US Class (3):71

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L16: Entry 3 of 5

File: USPT

Aug 11, 1981

DOCUMENT-IDENTIFIER: US 4283219 A

TITLE: Agrochemical agents and their use

Brief Summary Text (54):

By "acid addition salts" in the context of this invention is meant those salts which are formed by addition of a proton of an inorganic or organic acid onto an amino group or another suitable group in an azulmic acid stabilized in the manner described herein. Preferred inorganic acids include hydrogen halide acids, such as hydrofluoric acid, hydrochloric acid and hydrobromic acid; phosphorous acids, such as phosphoric acid; phosphorous acid; dialkylphosphoric acids, for example dibutylphosphoric acid; polyphosphoric acids with molecular weights from 6,000 to 40,000; phospholine oxide-phosphonic acids, for example those of the formulae ##STR21## nitric acid; and acids derived from sulfur, such as sulfuric acid and sulfonic acids. Examples of sulfonic acids include ethylsulfonic acid, p-toluenesulfonic acid and naphthalene-1,5-disulfonic acid. Preferred organic acids include saturated or unsaturated carboxylic acids, such as formic acid; acetic acid; propionic acid; 2-ethylcaproic acid; acrylic acid; methacrylic acid; oleic acid; ricinoleic acid; halogenocarboxylic acids, such as chloroacetic acid, dichloroacetic acid and trichloroacetic acid; dicarboxylic acids, such as maleic acid, fumaric acid and succinic acid, and half-esters derived therefrom; and hydroxycarboxylic acids, such as hydroxyacetic acid, tartaric acid, citric acid and salicylic acid.

Brief Summary Text (76):

(xiii) by treatment with hydroxy-alkane-phosphonic acid esters or the acids from which they are derived, especially with hydroxymethyl-phosphonic acid esters or the free hydroxymethyl-phosphonic acid;

Brief Summary Text (134):

Preferred basic salts for carrying out variant (b) of process (A) include alkali metal sulfides, such as sodium sulfide, sodium bisulfide and potassium bisulfide; sodium thiosulfate; ammonium thiosulfate; ammonium polysulfides; calcium bisulfide, calcium thiosulfate and calcium cyanamide; and potassium carbonate, potassium bicarbonate, potassium cyanate and waterglass (sodium waterglass or potassium waterglass). Mixtures of ammonia and sodium thiosulfate, ammonium thiosulfate, sodium bisulfide, sodium sulfide and/or ammonium polysulfides are also particularly suitable for producing structural defects by this method.

Brief Summary Text (247):

Possible bases or basic salts in carrying out process variant (6) include the most diverse inorganic or organic bases and basic salts. Alkali metal hydroxides such as lithium hydroxide, sodium hydroxide and potassium hydroxide; alkali metal carbonates, such as sodium carbonate, potassium carbonate and potassium bicarbonate; alkali metal sulfides, such as sodium sulfide, potassium sulfide and potassium bisulfide; alkali metal thiosulfates, such as sodium thiosulfate; alkylamines, ammonium hydroxide and ammonium salts, such as ammonium polysulfides, are preferred.

Brief Summary Text (319):

Finally, a further preferred method for the production of structural defects in the products according to the invention consists of a procedure in which the reactions according to the invention are carried out in the presence of sodium hydroxide, potassium hydroxide, calcium hydroxide, sodium sulfite, sodium thiosulfate,

- rongalite, sodium sulfide, ammonium polysulfides, diethyl phosphite, dimethyl phosphite or hydroxymethylphosphonic acid.

Current US Class (4):

71

CLAIMS:

15. A method according to claim 14 wherein the surface of said reaction product has been chemically modified by treatment with: a urea melt; a monisocyanate or polyisocyanates; an acylating agent; a cyclic acid anhydride; a melt of a dicarboxylic acid; an inorganic acid chloride; an organic acid chloride; an alkylating agent; an isocyanate chloride, .epsilon.-caprolactam; .epsilon.-caprolactone; hydroxypivalic acid lactone; a cyclic 6- or 8-membered siloxane; an azalactam; glycol carbonate; ethylene oxide; propylene oxide; butylene oxide, styrene oxide; epichlorohydrin; butyrolactone; valerolactone; an oxazolidine; an oxazoline; an imidazolidine; isatoic acid anhydride; a cyclic anhydride of an amino acid and phosgene; a vinyl monomer; an alcohol; a carbodiimide; a hydroxyalkane-phosphonic acid; an ester of a hydroxyalkane phosphonic acid; a chloromethyl-alkoxysiloxane; or a mono- or polynitrile.

26. A method according to claim 24 wherein the acid forming the salt is selected from the group consisting of hydrogen halide acids, phosphoric acid, phosphorous acid, dialkylphosphoric acids, polyphosphoric acids with molecular weights from 6,000 to 40,000, phospholine oxide-phosphonic acids, nitric acid, sulfuric acid, sulfonic acids, saturated or unsaturated carboxylic acids, halogenocarboxylic acids, dicarboxylic acids and half-esters thereof, and hydroxycarboxylic acids.

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L16: Entry 2 of 5

File: USPT

Jun 15, 1982

DOCUMENT-IDENTIFIER: US 4334905 A

TITLE: Agrochemical agents and their use

Brief Summary Text (15):

By acid addition salts of azulmic acid which are stabilised by condensation with carbonyl compounds there are to be understood those salts which are formed by addition of a proton of an inorganic or organic acid onto an amino group or another suitable group in a stabilised azulmic acid. Preferred inorganic acids here are hydrogen halide acids, such as hydrofluoric acid, hydrochloric acid and hydrobromic acid; phosphorus acids, such as phosphoric acid, phosphorous acid, dialkylphosphoric acids, for example dibutylphosphoric acid, polyphosphoric acids with molecular weights from 6,000 to 40,000 and phospholine oxidephosphonic acids, for example those of the formulae ##STR6## nitric acid; and acids derived from sulphur, such as sulphuric acid and sulphonc acids, examples which may be mentioned being ethylsulphonic acid, p-toluenesulphonic acid and naphthalene-1,5-disulphonic acid. Preferred organic acids are saturated or unsaturated carboxylic acids, such as acetic acid, propionic acid, 2-ethylcaproic acid, acrylic acid, methacrylic acid, oleic acid and ricinoleic acid; halogenocarboxylic acids, such as chloroacetic acid, dichloroacetic acid and trichloroacetic acid; dicarboxylic acids, such as maleic acid, fumaric acid and succinic acid, and half-esters derived therefrom; and hydroxycarboxylic acids, such as hydroxyacetic acid, tartaric acid, citric acid and salicylic acid.

Brief Summary Text (73):

Preferred possible basic salts for carrying out variant (b) of process (A) are alkali metal sulphides, such as sodium sulphide, sodium bisulphide and potassium bisulphide, and further sodium thiosulphate, ammonium thiosulphate, ammonium polysulphides, calcium bisulphide, calcium thiosulphate and calcium cyanamide, and also potassium carbonate, potassium bicarbonate, potassium cyanate and waterglass (sodium waterglass or potassium waterglass). Mixtures of ammonia and sodium thiosulphate, ammonium thiosulphate, sodium bisulphide, sodium sulphide and/or ammonium polysulphides are also particularly suitable for producing structural defects by this method.

Brief Summary Text (172):

Possible bases or basic salts in carrying out process (5) are the most diverse inorganic or organic bases and basic salts. Alkali metal hydroxides, such as lithium hydroxide, sodium hydroxide and potassium hydroxide, alkali metal carbonates, such as sodium carbonate, potassium carbonate and potassium bicarbonate, alkali metal sulphides, such as sodium sulphide, potassium sulphide and potassium bisulphide, alkali metal thiosulphates, such as sodium thiosulphate, alkylamines and furthermore ammonium hydroxide and ammonium salts, such as ammonium polysulphides, can preferably be used.

Detailed Description Text (102):

(a) A mixture of 108 g of the azulmic acid prepared according to Example 13(a), 14 g of calcium thiosulphate hexahydrate and 800 ml of water was warmed to 100.degree. C. for 1.6 hours. The mixture was then worked up by a procedure in which the solid product was filtered off, washed and dried. A modified azulmic acid was obtained which, on the basis of the amounts of ammonia and carbon dioxide evolved, contained about 3.3 percent by weight of F.sub.1 structural defects additionally formed and about 1.4 percent by weight of F.sub.2 structural defects additionally formed.

Current US Class (1):

71

CLAIMS:

4. The method of claim 1, in which said acid addition salt of said stabilized azulmic acid is an acid addition salt of an acid selected from the group consisting of halide acids, phosphoric acid, phosphorous acid, phospholine oxide-phosphonic acids, dialkylphosphoric acids, polyphosphoric acids, nitric acid, acids derived from sulfur and organic acids.

WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 1 through 1 of 1 returned.**☒ 1. Document ID: US 6364926 B1

L12: Entry 1 of 1

File: USPT

Apr 2, 2002

US-PAT-NO: 6364926

DOCUMENT-IDENTIFIER: US 6364926 B1

TITLE: Concentrated liquid adjuvant and fertilizer

DATE-ISSUED: April 2, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gryzik; Frank A.	Arlington Heights	IL		
Reiss; James D.	West Dundee	IL		

US-CL-CURRENT: 71/64.1; 71/34, 71/59, 71/61

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
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WEST**End of Result Set**

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L12: Entry 1 of 1

File: USPT

Apr 2, 2002

DOCUMENT-IDENTIFIER: US 6364926 B1

TITLE: Concentrated liquid adjuvant and fertilizer

Brief Summary Text (31):

The ammonium salt utilized as the nitrogen source is not limited, and can be any ammonium salt known to persons skilled in the art. Nonlimiting examples of ammonium salts that can be used in a present adjuvant and fertilizer composition include, but are not limited to, ammonium sulfate, ammonium chloride, ammonium metaphosphate, ammonium nitrate, diammonium phosphate, monoammonium phosphate, ammonium phosphate nitrate, ammonium phosphate sulfate, ammonium polyphosphate, ammonium sulfate nitrate, ammonium thiosulfate, ammonium polysulfide, and mixtures thereof. Preferred ammonium salts are ammonium sulfate, diammonium phosphate, and monoammonium phosphate. Ammonium sulfate is an especially preferred salt for use in an adjuvant, particularly in an adjuvant designed for use with the herbicide glyphosate.

Brief Summary Text (50):

Another optional ingredient can be a preservative, which is added to the composition in a sufficient amount to prevent microbial growth in the fertilizer composition during storage of the composition. Nonlimiting examples of preservatives include formaldehyde, formaldehyde precursors, a paraben, DEDM hydantoin, diazolidinyl urea, DMDM hydantoin, glyoxal, imidazolidinyl urea, MDM hydantoin, methylchloroisothiazolinone, methyl isothiazolinone, benzoic acid, sodium benzoate, other preservatives that are well known in the art, and mixtures thereof. Additional optional ingredients include, for example, chelating agents, antifoam agents, viscosity modifiers, suspending agents, and dyes.

DATE-ISSUED: November 30, 1971

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wendler; Norman L.	Summit	NJ		
Taub; David	Metuchen	NJ		
Girotra; Narindar Nath	Rahway	NJ		

US-CL-CURRENT: 562/463; 549/222, 549/270, 549/273, 549/343, 549/416, 549/420,
549/423, 560/53, 568/386, 568/415

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

☐ 6. Document ID: EP 203734 A AU 8657087 A CA 1287744 C DE 3665057 G EP 203734
B JP 61256991 A US 5047078 A ZA 8603220 A

L11: Entry 6 of 6

File: DWPI

Dec 3, 1986

DERWENT-ACC-NO: 1986-320656

DERWENT-WEEK: 198649

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TITLE: Use of scale-inhibiting cpd. with fertiliser - to enhance efficacy of
fertiliser and increase availability of other soil nutrients

INVENTOR: GILL, J S

PRIORITY-DATA: 1985US-0729838 (May 2, 1985)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 203734 A	December 3, 1986	E	015	
AU 8657087 A	November 6, 1986		000	
CA 1287744 C	August 20, 1991		000	
DE 3665057 G	September 21, 1989		000	
EP 203734 B	August 16, 1989	E	000	
JP 61256991 A	November 14, 1986		000	
US 5047078 A	September 10, 1991		000	
ZA 8603220 A	October 28, 1986		000	

INT-CL (IPC): C02F 5/10; C05B 1/00; C05B 3/00; C05B 7/00; C05B 13/06; C05B 21/00;
C05G 3/00; C08F 0/00; C08G 3/00

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC
Draw Desc	Image									

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Terms	Documents
(15 and 17) not 18	6

A method of enhancing the efficiency of a phosphate fertiliser and increasing the availability of other soil nutrients comprises adding to the fertiliser a scale-inhibiting cpd. (I). (I) is e.g. one or more phosphonates, sulphonates, water-soluble polymers prepd. from acrylic acid, methacrylic acid, alphahalo acrylic acids, maleic acid or maleic anhydride, itaconic acid, vinyl acetic acid, allyl acetic acid, fumaric acid, crotonic acid, cinnamic acid, vinyl benzoic acid and beta-carboxyethyl acrylate or copolymers prepd. from these unsatd. carboxylic monomers and one or acrylamide, methacrylamide, hydroxy alkyl esters of acrylic acid or methacrylic acid, 2-acrylamido-2-methylpropyl sulphonic acid, 2-methylacrylamido-2-methylpropylsulphonic acid, vinylsulphonic acid, sulphonalkyl acrylate, sulphoalkyl meth-acrylate, allylsulphonic acid, methallylsulphonic acid, 3-methacrylamido-2-hydroxypropyl-sulphonic acid, sulphonic acid acrylate, 2-acrylamido-2-methyl propyl phosphonic acid, 2-methacrylamido-2-methyl propyl phosphonic acid, ethoxylated ethers of allyl or methallyl alcohols, propoxylated ethers of allyl or methallyl alcohols, ethoxylated esters of acrylic acid or methacrylic acid, propoxylated esters of acrylic acid or methacrylic acid, ethylene oxide/propylene oxide copolymers having polyether side chains, allyl polyethylene oxides, polyethylene glycol monomethacrylate, dimethyl dialkyl ammonium chloride or diethyl diallyl ammonium chloride.

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☐ 3. Document ID: US 5714507 A

L11: Entry 3 of 6

File: USPT

Feb 3, 1998

US-PAT-NO: 5714507

DOCUMENT-IDENTIFIER: US 5714507 A

TITLE: Synergistic compositions containing metconazole and another triazole

DATE-ISSUED: February 3, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Valcke; Alex Raymond Albert	Wechelderzande			BE
Van Der Flaas; Mark Arthur Josepha	Herselt			BE

US-CL-CURRENT: 514/383

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
Draw Desc	Image										

☐ 4. Document ID: US 4067723 A

L11: Entry 4 of 6

File: USPT

Jan 10, 1978

US-PAT-NO: 4067723

DOCUMENT-IDENTIFIER: US 4067723 A

TITLE: Pyridazine pesticides

DATE-ISSUED: January 10, 1978

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Garland; Ian Philip	Angus			SC
Hatton; Leslie Roy	Harold Wood			EN
Leeds; William George	London			EN
Parnell; Edgar William	Hornchurch			EN

US-CL-CURRENT: 504/236; 544/378, 549/476, 549/478, 549/484, 549/497, 549/498,
549/501, 987/164

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC
Draw Desc	Image									

☐ 5. Document ID: US 3624144 A

L11: Entry 5 of 6

File: USPT

Nov 30, 1971

US-PAT-NO: 3624144

DOCUMENT-IDENTIFIER: US 3624144 A

TITLE: ZEARELENONE INTERMEDIATES AND THEIR PREPARATION

WEST**End of Result Set**☐ **Generate Collection** **Print**

L10: Entry 1 of 1

File: USPT

May 8, 2001

DOCUMENT-IDENTIFIER: US 6228806 B1

TITLE: Biochemical fertilizer composition

Brief Summary Text (26):

Optional components that can also be present in the fertilizer compositions of the invention include natural enzymes, growth hormones such as the gibberellins (gibberellic acid and gibberellin plant growth hormones), and control agents including Pesticides such as acaracides and molluskicides, insecticides, fungicides, nematocides, and the like, depending of course on their compatibility with the component B) microorganisms. Compounds useful as control agents may have one activity only, but frequently are effective in more than one of the above categories. Examples of control agents that can be used in the compositions of the invention, depending on component B) compatibility, include inorganic compounds such as elementary sulfur and inorganic sulfur compounds, e.g. calcium polysulfide and sodium thiosulfate, which are effective fungicides, copper, zinc, and other metal in organics such as copper carbonate copper oxychloride, copper sulfate, and copper zinc sulfate. Organometallic compounds such as iron and tin compounds, e.g. triphenyl tin hydroxide exhibit both insecticidal and pesticidal activity. Saturated higher alkyl alcohols, either straight or branched chain, such as nonyl and decyl alcohol, can be present as insecticides. Aldehydes such as metaldehyde is an effective molluskicide, e.g. useful against snails. Carbonic acid derivatives, especially their mixed esters, are potent acaracides and fungicides, and when sulfur is also present, e.g. mixed esters of thio- and di-thiocarbonic acids, activity is further increased. 6-methylquinoxaline-2,3-dithiocyclocarbonate is an effective acaricide, fungicide, and insecticide. Carbamic acid derivatives such as aryl esters of N-methylcarbamnic acid, e.g. 1-naphthyl-N-methylcarbamate can also be used. Halogen substituted aliphatic monobasic and dibasic carboxylic acids are effective pesticides. Natural pyrethrins and their synthetic analogs are also effective pesticides. Salicylanilide is effective against leaf mold and tomato brown spot. Heterocyclic compounds possessing insecticidal and/or fungicidal activity can also be used. Halogen derivatives of benzene, such as paradichlorobenzene, are effective pesticides, often used against the sugarbeet weevil. Chitin-containing products are effective menatocides. Other compounds that can be used include aliphatic mercaptans having four or fewer carbon atoms, organic sulfides and thioacetals, nitro compounds such as chloropicrin dichloronitroethane, and chloronitropropane, copper and zinc inorganic and organic compounds, e.g. copper linoleate, copper naphthenate, etc., organophosphorous compounds of which there are well over a hundred, e.g. DDVP, tris-(2,4-diphenoxyethyl) phosphite, derivatives of mono- and dithiophosphoric acids, such as 0,0-diethyl S [2-ethylthio)-ethyl]phosphorodithioate, phosphoric acid derivatives, pyrophosphoric acid derivatives and phosphonic acid derivatives, quinones, sulfonic acid derivatives, thiocyanates and isocyanates, phytoalexins, insect killing soaps such as potassium fatty acid salts, and antiallatotropins such as 7-methoxy-2,2-dimethylchromene and the 6,7-dimethoxy analog. Diatomaceous earth can be used, which kills crawling insects.

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L10: Entry 1 of 1

File: USPT

May 8, 2001

US-PAT-NO: 6228806

DOCUMENT-IDENTIFIER: US 6228806 B1

TITLE: Biochemical fertilizer composition

DATE-ISSUED: May 8, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mehta; Raj J.	King of Prussia	PA		

US-CL-CURRENT: 504/117

Full	Title	CIT.1	REV.1	CLS.1	REF.1	SEQ.1	ATT.1
RAW.1							

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L8: Entry 1 of 1

File: DWPI

Apr 29, 2003

DERWENT-ACC-NO: 2000-532886

DERWENT-WEEK: 200334

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TITLE: Liquid fertilizer composition, useful for stimulating plant growth and controlling parasitic fungi, comprises a phosphonate and a thiosulfate or a salicylic acid derivative

INVENTOR: HARDING, P; WILLIAMS, R H

PATENT-ASSIGNEE: MANDOPS UK LTD (MANDN)

PRIORITY-DATA: 1999GB-0002665 (February 5, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
NZ 513505 A	April 29, 2003		000	C05B017/00
WO 200046169 A2	August 10, 2000	E	040	C05G000/00
AU 200023105 A	August 25, 2000		000	C05G000/00
NO 200103798 A	October 5, 2001		000	C05G000/00
EP 1161405 A2	December 12, 2001	E	000	C05B017/00
ZA 200105952 A	April 24, 2002		069	C05G000/00
JP 2002536281 W	October 29, 2002		042	C05B015/00

DESIGNATED-STATES: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

DERWENT-CLASS: C04 P13
CPI-CODES: C05-B02A4; C05-B02A5; C05-C05; C10-C03; C10-C04C; C10-D03; C14-A06;
C14-S09; C14-T03; C14-T04;